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LETTER AND COMMENTS ON BEHALF OF SEACOAST ANTI POLLUTION LEAGUE  
REGARDING ONSHORE/OFFSHORE CONTAMINANT FATE AND TRANSPORT MODELING  
PHASE 1 REPORT NSY PORTSMOUTH ME  
3/10/1997  
SEACOAST ANTI-POLLUTION LEAGUE

*The Seacoast Anti-Pollution League*

Founded 1969

**SAPL**

**127 HIGH STREET / P. O. BOX 1136**

**PORTSMOUTH, NH 03802**

**603-431-5089**

March 10, 1997

Ms. Marty Raymond  
Portsmouth Naval Shipyard  
Code 106.3R, Bldg. 44  
Portsmouth, NH 03804-5000

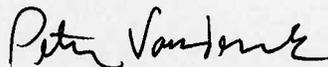
Subject: *Review Comments, On-Shore/Off-Shore Contaminant  
Fate & Transport Modeling Phase I Report*

Dear Ms. Raymond:

I am forwarding a copy of the review comments concerning the February 1997 document *On-Shore/Off-Shore Contaminant Fate & Transport Modeling Phase I Report* prepared by Carolyn Lepage, SAPL's technical advisor.

Please contact Carolyn Lepage or myself with any questions.

Sincerely,



Peter Vandermark  
Chair, TAG Committee

enc: *Review Comments, On-Shore/Off-Shore Contaminant  
Fate & Transport Modeling Phase I Report*

# Lepage Environmental Services, Inc.

P. O. Box 1195 • Auburn, Maine 04211-1195 • 207-777-1049 • Fax: 207-777-1370

March 6, 1997

Peter Vandermark  
Seacoast Anti-Pollution League  
P. O. Box 1136  
Portsmouth, New Hampshire 03801

Subject: Review Comments, *On-Shore/Off-Shore Contaminant Fate and Transport Modeling Phase I Report*

Dear Mr. Vandermark:

As you requested, we are transmitting comments to the Seacoast Anti-Pollution League (SAPL) concerning the February 1997 document *On-Shore/Off-Shore Contaminant Fate and Transport Modeling Phase I Report*. The document was prepared by Brown & Root Environmental for the Navy to summarize the first phase of the on-shore/off-shore contaminant fate and transport modeling task. The report describes the model procedures and results, and presents recommendations for future work. During our review, we focused on the text portions of the report, and did not review the equations, calculations, or tables in the text and appendices. Our comments are as follows:

- 1. Page ES-1.** In the second paragraph under the Purpose, Scope, and Objectives heading, the Navy should clarify that remediation decisions will be made based on the Feasibility Study, not the modeling report. (See response to SAPL comment #2 in Appendix G.)
- 2. Page ES-4.** The meaning of the last sentence in the section concerning uncertainty analysis isn't clear to those interested readers who lack experience with Monte Carlo simulations. Perhaps the Navy could rephrase it.
- 3. Page ES-5.** The Navy's response to SAPL's comment #3 (see Appendix G) indicates the results of the low-flow sampling conducted in December 1996 will be utilized in the Phase II modeling, and that the maximum concentrations from each of the phases will be compared. The paragraph on the Phase II modeling doesn't mention any type of evaluation of the Phase II results relative to Phase I results. The Navy should clarify that such a comparison or evaluation will be performed.

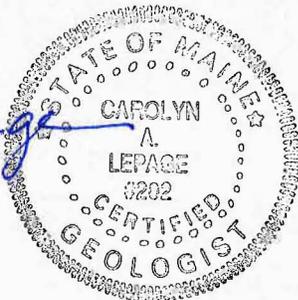
4. **Page 1-1, Section 1-1.** A brief statement as to why the Navy anticipates the Phase I modeling results will be more conservative than the Phase II (last sentence in first paragraph in Section 1.1) results would help the reader.
5. **Pages 1-1 & 1-2, Section 1-1.** The placement of the parentheses at the bottom of page 1-1 and the top of page 1-2 is confusing.
6. **Page 1-2, Section 1-1.** The statement made just over halfway down the page that "Additional modeling efforts may be required in the future (Phase II)" implies that the Phase II modeling might not take place. Yet the rest of the text indicates that Phase II will occur. Please clarify.
7. **Page 5-1, Section 5-1.** How and when will the addition or deletion of chemicals as COC's (Contaminants of Concern) be communicated to other RAB (Restoration Advisory Board) members? Will there be an opportunity for input from RAB members prior to a decision being made?
8. **Page 5-3, Section 5.1.1.** Is the Navy assuming a linear relationship between exceedance of criteria and the risk it represents? If so, what is the basis for the assumption and is it a valid assumption for all the COCs?
9. **Page 5-8, Section 5.1.2.4.** How will the Navy evaluate factors like "facilitated transport by suspended solids" in Phase II?
10. **Page 6-27, Section 6.3.1.1.** With regard to the source of fine-grained materials, what is the potential for fill material or runoff from the facility, both current and historic, as a source for this material? Is the causeway to Clark Island a potential source of fine-grained materials?
11. **Page 10-2, Section 10.2.** What are the critical data not currently available that will be required before final remediation decisions can be made?
12. **General Comment.** As we have stated in previous comment letters, while we believe modeling can be a useful tool to help integrate and interpret data, characterization of the site and related marine environments is best made utilizing actual data. As pointed out in the Executive Summary and elsewhere in the report, the Phase I effort has identified potential adverse effects at OU2 and OU3. The Navy has also stated (on page ES-1 for example), that, regardless of the modeling results, both continued on-shore and off-shore monitoring will be required. We look forward to the Phase II modeling results, which may help clarify issues such as the effect of mixing fresh ground water with salt water on contaminant transport (page 6-30). However, we remain concerned with the application and possible "over" interpretation of the modeling results in future decision-making, given the numerous simplifying assumptions necessary to conduct this type of modeling, as well as the lack of an extensive database.

I will be out of the office until March 17<sup>th</sup> . If you have any questions regarding the comments above, please give me a call at 207-777-1049 on or after the 17<sup>th</sup> .

Sincerely,

*Carolyn A. Lepage*

Carolyn A. Lepage, C.G.  
President



Enc.

cc. Meghan Cassidy, EPA  
Iver McLeod, DEP